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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,811	01/29/2001	Steven Michael Bellovin	2000-0008	7823

7590   08/04/2004

Samuel H. Dworetsky
AT&T CORP.
P.O. Box 4110
Middletown, NJ   07748-4110

EXAMINER
BAUM, RONALD

ART UNIT	PAPER NUMBER
2136	

DATE MAILED: 08/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/771,811	BELLOVIN, STEVEN MICHAEL
	Examiner	Art Unit	
	Ronald Baum	2136	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date *9/4/2001*.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

U.S. Patent and Trademark Office

PTOL-326 (Rev. 1-04)   Office Action Summary   Part of Paper No:/Mail Date 07272004

DETAILED ACTION

1.   Claims 1-18 are pending for examination.

2.   Claims 1-18 are rejected.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Coss et al, U.S. Patent 6,098,172.

4.   As per claim 1; "A method of processing packets at a firewall in a packet-switched network comprising: receiving an outbound packet from a process group network address; and authorizing subsequent inbound packet traffic destined for the process group network address [ABSTRACT, col. 1,lines 59-col. 2,line 41, col. 4,lines 17-col. 9,line 33, whereas the "stateful" and dependency mask packet filtering aspects utilizing rules/rule sets that allow for "rule processing of subsequent packets" in multiple domain with "included" address ranges (i.e., group network address), and additionally the "session key" cache relationships to the rules searching, constitutes authorizing subsequent packet received as a function of a previous one going out.].";

Further, as per claim 10; "A computer readable medium containing executable program

instructions [This claim is the software computer-readable medium claim for the method claim 1

above, and is rejected for the same reasons provided for the claim 1 rejection] for performing a

method on a firewall connected to a packet-switched network comprising the steps of: receiving

an outbound packet from a process group network address, and authorizing subsequent inbound

packet traffic destined for the process group network address.".

5.   Claim 2 *additionally recites* the limitation that; "The invention of claim 1 further

comprising the subsequent step of canceling authorization for subsequent inbound packet traffic

destined for the process group network address after a period of time.". The teachings of Coss et

al suggest such limitations (ABSTRACT, col. 1,lines 59-col. 2,line 41, col. 4,lines 17-col. 9,line

33, col. 9,lines 15-34, col. 10,lines 60-63, whereas the "time limited rules…for a specified time

period", "threshold rules" authorization upon specific conditions, rule application as a function

of "the time of day or day of the week.", FTP proxy session "made active for only a limited

time", and "dynamic rules apply for the life of the session" deal with this limitation.);

        Further, as per claim 11 *additionally reciting* the limitation that; "The invention [This

claim is the software computer-readable medium claim for the method claim 2 above, and is

rejected for the same reasons provided for the claim 2 rejection] of claim 10 further comprising

the subsequent step of canceling authorization for subsequent inbound packet traffic destined for

the process group network address after a period of time.".

6.   Claim 3 *additionally recites* the limitation that; "The invention of claim 2 wherein the

outbound packet begins a connection protocol and authorization is canceled after the connection

terminates.". The teachings of Coss et al suggest such limitations (ABSTRACT, col. 1,lines 59-col. 2,line 41, col. 4,lines 17-col. 9,line 33, col. 9,lines 15-34, col. 10,lines 60-63, whereas the dependency mask packet filtering aspects utilizing rules for the first packet of a network session, the "session key" cache relationships to the rules searching, FTP proxy session "made active for only a limited time", and "dynamic rules apply for the life of the session" deal with this limitation.);

Further, as per claim 12 *additionally reciting* the limitation that; "The invention [This claim is the software computer-readable medium claim for the method claim 3 above, and is rejected for the same reasons provided for the claim 3 rejection] of claim 11 wherein the outbound packet begins a connection protocol and authorization is canceled after the connection terminates.".

7.   Claim 4 *additionally recites* the limitation that; "The invention of claim 1 wherein the addresses are expressed as IPv4 address.". The teachings of Coss et al suggest such limitations (ABSTRACT, col. 1,lines 59-col. 2,line 41, col. 4,lines 17-col. 9,line 33, col. 9,lines 15-34, col. 10,lines 60-63, whereas the Internet network embodiments inherently utilizing IPv4, and IPv6 (i.e., in "Tunnel requirements" and "IPSEC requirements" tunneling and security aspects) deal with this limitation.);

Further, as per claim 13 *additionally reciting* the limitation that; "The invention [This claim is the software computer-readable medium claim for the method claim 4 above, and is rejected for the same reasons provided for the claim 4 rejection] of claim 10 wherein the addresses are expressed as IPv4 address.".

8.   Claim 5 *additionally recites* the limitation that; "The invention of claim 1 wherein the

addresses are expressed as IPv6 addresses, wherein a portion of the address is reserved to

identify a host process group.". The teachings of Coss et al suggest such limitations ( );

        Further, as per claim 14 *additionally reciting* the limitation that; "The invention [This

claim is the software computer-readable medium claim for the method claim 5 above, and is

rejected for the same reasons provided for the claim 5 rejection] of claim 10 wherein the

addresses are expressed as IPv6 addresses, wherein a portion of the address is reserved to

identify a host process group.".

9.   As per claim 6; "A method of processing packets at a host which are destined for a

firewall in a packet-switched network comprising the steps of: assigning a process group

network address to a first outbound packet commencing a process; transmitting the outbound

packet to a firewall on its path to its destination in a packet-switched network; receiving inbound

packets addressed to the process group network address; and receiving and associating inbound

packets addressed to the process group network address with the process [ABSTRACT, col.

1,lines 59-col. 2,line 41, col. 4,lines 17-col. 11,line 11, whereas this claim deals with the

applicants invention from the point of view of the host forward of packets to the firewall, such

that the use of proxy to firewall connection functionality, as broadly interpreted by the examiner,

encompasses these limitations, and further, "stateful" and dependency mask packet filtering

aspects utilizing rules/rule sets that allow for "rule processing of subsequent packets" in multiple

domain with "included" address ranges (i.e., group network address), and additionally the

"session key" cache relationships to the rules searching, constitutes authorizing subsequent packet received as a function of a previous one going out.].";

Further, as per claim 15; "A computer readable medium containing executable program instructions [This claim is the software computer-readable medium claim for the method claim 6 above, and is rejected for the same reasons provided for the claim 6 rejection] performing a method on a host connected to a packet switched network comprising the steps of: assigning a process group network address to a first outbound packet commencing a process; transmitting the outbound packet to a firewall on its path to its destination in a packet-switched network; receiving inbound packets addressed to the process group network address; and receiving and associating inbound packets addressed to the process group network address with the process.".

10. Claim 7 *additionally recites* the limitation that; "The invention of claim 6 wherein the process is a connection across the packet-switched network to another host.". The teachings of Coss et al suggest such limitations (ABSTRACT, col. 1,lines 59-col. 2,line 41, col. 4,lines 17-col. 11,line 11, figure 4 and accompanying description, whereas TELNET, email, etc., constitute connection across the packet-switched network to another host.);

Further, as per claim 16 *additionally reciting* the limitation that; "The invention [This claim is the software computer-readable medium claim for the method claim 7 above, and is rejected for the same reasons provided for the claim 7 rejection] of claim 15 wherein the process is a connection across the packet-switched network to another host.".

11.   Claim 8 *additionally recites* the limitation that; "The invention of claim 6 further

comprising the step of notifying the firewall when the process terminates.". The teachings of

Coss et al suggest such limitations (ABSTRACT, col. 1,lines 59-col. 2,line 41, col. 4,lines 17-

col. 11,line 11, figure 4 and accompanying description, whereas the dependency mask packet

filtering utilizing rules for the first packet of a network session, the "session key" cache

relationships to the rules searching, FTP proxy session "made active for only a limited time", and

"dynamic rules apply for the life of the session" aspects all deal with communications of

information the firewall uses in it's filtering decisions, inclusive of decisions to terminate

connections related to associated processes deal with this limitation.);

        Further, as per claim 17 *additionally reciting* the limitation that; "The invention [This

claim is the software computer-readable medium claim for the method claim 8 above, and is

rejected for the same reasons provided for the claim 8 rejection] of claim 15 further comprising

the step of notifying the firewall when the process terminates.".

12.   Claim 9 *additionally recites* the limitation that; "The invention of claim 6 wherein the

host uses a dynamic host configuration protocol to dynamically assign the process group network

address.". The teachings of Coss et al suggest such limitations (ABSTRACT, col. 1,lines 59-col.

2,line 41, col. 4,lines 17- col. 11,line 11, figure 4 and accompanying description, whereas the

network address translation aspects, and further, that the "dial-up access gateway" aspect (with

DHCP as part of dial-up ISP support services) deal with this limitation.);

        Further, as per claim 18 *additionally reciting* the limitation that; "The invention [This

claim is the software computer-readable medium claim for the method claim 9 above, and is

rejected for the same reasons provided for the claim 9 rejection] of claim t5 wherein the host

uses a dynamic host configuration protocol to dynamically assign the process group network

address.".

Conclusion

13.   Any inquiry concerning this communication or earlier communications from examiner·

should be directed to Ronald Baum, whose telephone number is (703) 305-4276. The examiner

can normally be reached Monday through Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ayaz Sheikh, can be reached at (703) 305-9648. The Fax numbers for the

organization where this application is assigned are:

After-final   (703) 746-7238

Official   (703) 746-7239

Non-Official/Draft   (703) 746-7246

Ronald Baum

Patent Examiner

AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100